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Implementation of the 'Test and Treat' policy for newly diagnosed people living with HIV in Zimbabwe in 2017

A. Rufu,[1] V. T. S. Chitimbire,[1] C. Nzou,[1] C. Timire,[2,3] P. Owiti,[4,5] A. D. Harries,[5,6] T. Apollo[7]

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Setting: Sixteen mission hospitals in Zimbabwe that are implementing the 'Test and Treat' programme for people living with the human immunodeficiency virus (HIV).
Objectives: To assess linkages of HIV diagnosis to care and treatment, time taken from being diagnosed with HIV infection to initiation of antiretroviral therapy (ART) and 3-month programmatic outcomes for those starting ART.
Design: Cross-sectional study using secondary data.
Results: Among 972 people newly diagnosed with HIV, 915 (94%) enrolled for HIV care and 771 (79%) were initiated on ART. Enrolment in care and initiation on ART on the same day as testing occurred in respectively 864 (89%) and 628 (65%) newly diagnosed patients. Over 80% of those who underwent HIV testing in maternal and child health departments initiated ART on the same day. Of the 144 (16%) people in care who were not initiated on ART, the principal reason in 102 (71%) was being transferred out. Most patients (90%) on ART were retained in care at 3 months, with transfer out accounting for most of the remainder.
Conclusion: The 'Test and Treat' approach was feasible and successful in getting newly HIV-infected people initiated early on ART. More research is needed to better understand the processes, benefits and potential risks.

The scale-up of antiretroviral therapy (ART) has been a major public health success story, with 19.5 million people accessing ART by the end of 2016.[1] This remarkable increase in ART uptake is largely responsible for the substantial decline in deaths related to the acquired immune-deficiency syndrome (AIDS) worldwide since 2010, from an estimated 1.5 million in 2010 to 1.0 million in 2016.[1]

In the 12 years since countries started national scale-up of ART, the criteria for initiating ART have changed. In 2003, people living with the human immunodeficiency virus (HIV) had to be in World Health Organization clinical Stage 3 or 4, or have a CD4 cell count < 200 cells/μl, before being considered eligible for ART.[2] Since then, the CD4 cell count threshold has gradually been relaxed to 350 cells/μl in 2010,[3] then to 500 cells/μl in 2013,[4] and in 2016 it was recommended that all people living with HIV should start ART early ('Test and Treat'), regardless of WHO clinical stage or CD4 cell count.[5]

Knowledge about the benefits of HIV testing and ART prompted the Joint United Nations Programme on HIV/AIDS (UNAIDS) to release its '90-90-90' treatment targets for HIV to accelerate progress towards ending the AIDS epidemic.[6] These targets specify that by 2020, 90% of people living with HIV (PLHIV) will know their HIV status, 90% of people diagnosed with HIV infection will receive ART and 90% of those on ART will be virally suppressed. The new 'Test and Treat' approach recommended in 2016 should facilitate the achievement of the second UNAIDS target of getting 90% of HIV-infected people onto ART.

Zimbabwe is a country in Southern Africa with a large and generalised HIV epidemic.[7] ART was introduced in the public health sector in 2004, and since then, uptake has increased tremendously, with over 900 000 people accessing ART countrywide by December 2016.[8] ART scale-up has been facilitated by a gradual loosening of the criteria for initiating ART, in line with WHO guidelines.

On World AIDS Day in December 2016, Zimbabwe launched the new 'Test and Treat' ('treat all') approach. According to the 2016 national policy and guidelines,[9] all people testing positive for HIV should start ART as soon as possible, and within 1 week. The results of several recent randomised trials have indicated that accelerated ART initiation, particularly same-day start, can improve patient and programme outcomes by reducing loss to follow-up (LTFU) before starting treatment,[10,11] although there is some evidence to suggest that rapid initiation of ART in pregnant women can increase LTFU after treatment has started, due to their having insufficient time to accept their HIV status.[12]

The present study was conducted in 16 mission hospitals in four provinces of Zimbabwe. These mission hospitals, which started implementing the national guidelines for 'Test and Treat' from December 2016, are supported by an international donor, are well-resourced and have good-quality data. The aim of the present study was to assess the linkages of HIV diagnosis to care and treatment, the time taken from being diagnosed HIV-positive on first testing to ART initiation, and early programmatic outcomes for those starting on ART. Specific objectives were to determine, in people newly diagnosed with HIV in 16 international donor-supported mission hospitals in Zimbabwe between April and June 2017: 1) demographic characteristics and departmental site of HIV testing; 2) enrolment in HIV care and ART initiation; 3) time taken from HIV diagnosis to enrolment in care and ART initiation, and factors associated with ART start on the same day as HIV testing; and 4) 3-month programmatic outcomes for those starting ART.

AFFILIATIONS
1 Zimbabwe Association of Church-Related Hospitals, Harare, Zimbabwe
2 International Union Against Tuberculosis and Lung Disease (The Union), Harare, Zimbabwe
3 National TB Control Programme, Ministry of Health and Child Care Zimbabwe, Harare, Zimbabwe
4 Academic Model Providing Access to Healthcare, Eldoret, Kenya
5 The Union, Paris, France
6 London School of Hygiene & Tropical Medicine, London, UK
7 National AIDS Programme, Ministry of Health and Child Care Zimbabwe, Harare, Zimbabwe

CORRESPONDENCE
Annah Rufu
Zimbabwe Association of Church Related Hospitals
160 Baines Avenue
Harare
Zimbabwe
e-mail: annah95@gmail.com

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METHODS

Study design

This was a cohort study using secondary data.

Setting

General setting

Zimbabwe (population 13 million; annual gross domestic product per capita US$924) is a land-locked country located in Southern Africa;[13,14] 70% of the population lives in rural areas where people generally have low socio-economic status, poor education and reside far from health facilities. Health care coverage in rural areas is provided mainly by mission hospitals that are under the administrative arm of the Zimbabwe Association of Church-Related Hospitals (ZACH).[15] In 2016, HIV prevalence was 1.6% among children aged 0–14 years and 14% among adults. There were 1.3 million PLHIV and 75% had accessed ART.[1] Progress towards the 90-90-90 targets stood at 74-87-87.[7]

Zimbabwe HIV/AIDS Programme: HIV testing and antiretroviral therapy

In Zimbabwe, intensified provider-initiated HIV testing is offered to all patients attending government and mission health facilities. Voluntary HIV testing and counselling is also widely offered countrywide, and self-testing has just been initiated after successful pilot projects. The ART programme was implemented at five ART sites in 2004, and in line with a policy of decentralisation this rapidly expanded to reach over 1500 health facilities (>90% of all health facilities in the country) by June 2015. As the majority of the health facilities have both HIV testing and HIV care and treatment services, linking HIV-positive patients to care and ART is potentially straightforward.

Specific study sites: international donor-supported mission hospitals

Sixteen international donor-supported mission hospitals were included in the study. Located in four provinces and 14 districts, the hospitals each have an HIV testing and counselling centre that offers HIV testing—performed mainly by nurses and primary counsellors—to in-patients, out-patients, patients who attend the maternal and child health clinic or the opportunistic infection clinic and the community through outreach programmes. Patients are first tested using the Determine Rapid Test (Determine HIV-1/2 Ag/Ab Combo; Alere Inc, Waltham, MA, USA) and, if found HIV-positive, this is confirmed using a repeat First Response Test (First Response® HIV 1-2-0 Card test, Premier Medical Corporation, Mumbai, India).[9] All HIV test results are recorded in an HIV testing services (HTS) register that also includes information on referral to care. HIV-infected persons are referred to the HIV care clinic, which is usually physically separate from the HIV testing centre, and are enrolled as soon as possible. ART is initiated by nurses who provide patients with a designated unique HIV care number. During community outreach, some patients are initiated on ART in the field.

Data on HIV testing, HIV care and ART are recorded in paper-based HTS registers, HIV care registers, ART registers, the electronic patient monitoring system (ePMS) and patient booklets, all of which are kept at the mission hospitals. The registers are linked and checked regularly by the monitoring and evaluation staff. The 16 facilities receive technical support on an annual basis for data quality audits and site improvement by monitoring systems from the international donor. This supervision eliminates discrepancies and duplication of HIV numbers.

Patient population

All patients who were newly diagnosed as being HIV-positive at the 16 international donor-supported mission hospitals between April 2017 and June 2017 were included in the study.

Data variables, sources of data and data collection

Data variables included province, hospital, department site of HIV testing, HTS number, age, sex, dates of HIV testing, WHO clinical stage, enrolled in HIV care, initiated on ART, reasons for not initiating ART and 3-month programmatic outcomes after starting ART. Programmatic outcome of LTFU was defined as not attending hospital for ⩾90 days. Data sources comprised specific registers, the ePMS and patient booklets of each mission hospital. Data for the study were col-

TABLE 1 Demographic characteristics and departmental site of HIV testing for people newly diagnosed with HIV at 16 mission hospitals, Zimbabwe, April–June 2017

Characteristics	People newly diagnosed with HIV *n* (%)
Total, *n*	972
Age group, years	
⩽5	19 (2)
6–14	32 (3)
15–25	194 (20)
26–35	336 (35)
36–50	300 (31)
51–59	43 (4)
⩾60	41 (4)
Missing data	7 (1)
Sex	
Male	396 (41)
Female	573 (59)
Missing data	3 (<1)
Province	
Mashonaland East	337 (35)
Mashonaland West	298 (31)
Mashonaland Central	162 (16)
Matebeleland North	175 (18)
Departmental site of HIV testing	
Out-patients	657 (68)
In-patient wards	49 (5)
Maternal and child health clinic	127 (13)
Outreach (community)	42 (4)
Opportunistic infections clinic	95 (10)
Departmental site unknown	2 (<1)

HIV = human immunodeficiency virus.

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Conflicts of interest: none declared.

TABLE 2 Enrolment in HIV care, WHO clinical staging, initiation on ART and time taken in people newly diagnosed with HIV at 16 mission hospitals, Zimbabwe, April–June 2017

Variables	*n* (%)
Newly diagnosed with HIV	972
Enrolled in HIV care	915 (94)*
Time to enrolment in HIV care	
On the same day as being HIV tested	864 (95)†
⩾2–14 days	40 (4)†
⩾15 days	11 (1)†
WHO clinical stage at enrolment	915
WHO Stage 1	456 (50)†
WHO Stage 2	231 (25)†
WHO Stage 3	161 (18)†
WHO Stage 4	14 (1)†
Missing data	53 (6)†
Intitiated on ART	771 (79)*
Same-day ART initiation	628 (65)‡
Time to initiation on ART	
On the same day as being HIV tested	628 (82)§
⩾2–7 days	70 (9)§
8–14 days	31 (4)§
⩾15 days	42 (5)§

*Proportion of those newly diagnosed with HIV (*n* = 972).
†Proportion of those enrolled in HIV care (*n* = 915).
‡Proportion among all those diagnosed (*n* = 972).
§Proportion of those initiated on ART (*n* = 771).
HIV = human immunodeficiency virus; WHO = World Health Organization; ART = antiretroviral therapy.

lected into a structured form between August 2017 and March 2018. In terms of data for enrolment to HIV care and ART, the time frame for each patient was always 90 days after HIV testing had been performed.

Analysis and statistics

Data were single-entered and analysed using EpiData (v 3.1 for entry and v 2.2.2.182 for analysis; EpiData Association, Odense, Denmark). Data were exported to STATA (Stata Corp, College Station, TX, USA) for multivariate analysis. Frequencies and proportions were used to describe the data. Factors associated with same-day ART initiation were compared using the χ^2 test (or χ^2 test for trend), and presented as odds ratios (ORs) and 95% confidence intervals (CIs). Binomial log-linear regression was used to calculate adjusted ORs. Levels of significance were set at 5% ($P < 0.05$).

Ethics approval

Permission to conduct the study was obtained from the Zimbabwe National AIDS Programme. Ethical approval of the protocol was obtained from the Medical Research Council of Zimbabwe, Harare, Zimbabwe, and the Ethics Advisory Group of the International Union Against Tuberculosis and Lung Disease, Paris, France. Informed participant consent was not required as only secondary data were used for the study.

RESULTS

There were 972 people newly diagnosed with HIV (median age 32 years, interquartile range 25–40) (see Table 1 for patient characteristics). Enrolment in HIV care, WHO clinical staging, initiation on ART and time taken for each of these steps are shown in Table 2. There were 915 (94%) people enrolled in HIV care and 771 (79%) initiated on ART. Enrolment in care on the same day and initiation on ART on the same day as HIV testing occurred in respectively 864 (89%) and 628 (65%) newly diagnosed patients. Half of those enrolled in care were in WHO Clinical Stage 1. There were losses between HIV testing, enrolment in care and initiation on ART (Figure 1): 57 (6%) people were not enrolled in HIV care; the reasons were not documented in HTS registers. Among the 144 (16%) people in care who were not initiated on ART, the principal reason in 102 (71%) was transfer out to another HIV care/ART centre.

Baseline characteristics associated with same-day ART initiation are shown in Table 3. Key findings were that when compared to those who tested HIV-positive in the out-patient department, those testing HIV-positive in maternal and child health had three times the odds of starting ART on the same day (aOR 3.3, 95%CI 1.9–5.7). The odds of starting ART on the same day was also five times higher in Mashonaland Central (aOR 4.8, 95%CI 2.9–8.0). In contrast, people testing HIV-positive during community outreach were 70% less likely to start ART on the same day than those tested in the out-patient department (aOR 0.3, 95%CI 0.2–0.6).

There was no significant association between WHO clinical staging and ART start on the same day (Table 4), although only 36% of those in WHO Clinical Stage 4 initiated early. Three-month programmatic outcomes of people who initiated ART are shown in Table 5. The majority (90%) were retained alive on ART, with most of the remainder having transferred out to another ART centre. There was no association between WHO clinical stage and retention in care (χ^2 test for trend = 0.58, $P = 0.45$). The cascade from being newly diagnosed HIV-positive to being retained alive on ART at 3 months after treatment initiation is shown in Figure 2. Of 972 people newly diagnosed HIV-positive, 94% were enrolled in HIV care, 79% were initiated on ART and 71% were retained alive on ART at 3 months.

DISCUSSION

This is the first study from Zimbabwe to report on preliminary results of the 'Test and Treat' approach at 16 mission hospitals in four provinces of the country. The findings are encouraging. First,

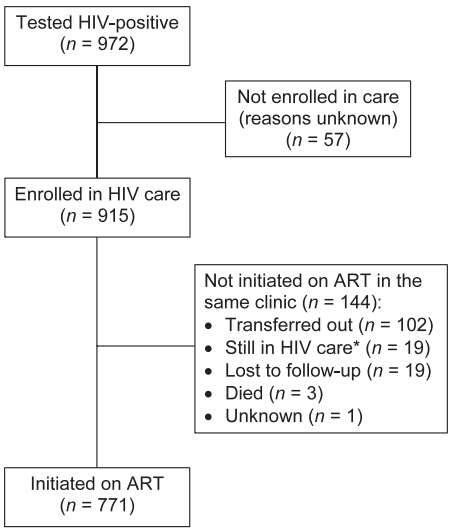

FIGURE 1 Flow chart from testing HIV-positive to enrolment in care to initiation on ART. *Patients still in the same clinic but whose treatment was not initiated. HIV = human immunodeficiency virus; ART = antiretroviral therapy.

TABLE 3 Characteristics associated with starting ART on the same day as being HIV tested in people newly diagnosed with HIV at 16 mission hospitals, Zimbabwe, April–June 2017

	Newly diagnosed with HIV	Initiated on ART on same day*				
Characteristics	*N*	*n* (%)	OR (95%CI)	*P* value	aOR (95%CI)†	*P* value
Total	972	628 (65)				
Age group, years						
⩾5	19	15 (79)	2.0 (0.7–6.2)	0.2	1.6 (0.5–5.1)	0.5
6–14	32	24 (75)	1.6 (0.7–3.7)	0.3	1.9 (0.8–4.4)	0.2
15–25	194	116 (60)	0.8 (0.6–1.2)	0.2	0.8 (0.5–1.1)	0.2
26–35	336	224 (67)	1.1 (0.8–1.5)	0.7	1.0 (0.7–1.4)	0.9
36–50	300	195 (65)	Reference			
51–59	43	24 (56)	0.7 (0.4–1.3)	0.2	0.7 (0.4–1.4)	0.3
⩾60	41	24 (59)	0.8 (0.4–1.5)	0.4	0.8 (0.4–1.6)	0.5
Missing data	7	6 (86)	—			
Sex						
Male	396	247 (62)	Reference			
Female	573	379 (66)	1.2 (0.9–1.5)	0.2	1.1 (0.8–1.5)	0.4
Missing data	3	2 (66)				
Province						
Mashonaland East	337	222 (66)	1.5 (1.1–2.0)	0.02	1.5 (1.1–2.1)	0.02
Mashonaland West	298	170 (57)	Reference			
Mashonaland Central	162	134 (83)	3.6 (2.3–5.8)	<0.001	4.8 (2.9–8.0)	<0.01
Matebeleland North	175	102 (58)	1.1 (0.7–1.5)	0.8	1.2 (0.8–1.8)	0.4
Site of HIV testing						
Out-patients	658	416 (63)	Reference			
In-patient wards	49	32 (65)	1.1 (0.6–2.0)	0.8	1.4 (0.7–2.9)	0.3
Maternal and child health clinic	127	109 (86)	3.5 (2.0–5.9)	<0.001	3.3 (1.9–5.7)	<0.01
Outreach (community)	42	18 (43)	0.4 (0.2–0.8)	<0.01	0.3 (0.2–0.6)	<0.01
Opportunistic infections clinic	95	52 (55)	0.7 (0.5–1.1)	0.1	0.7 (0.4–1.0)	0.07
Departmental site unknown	1	1 (100)	—			

*Proportion of those newly diagnosed with HIV (*n* = 972).
†Generalised linear regression with a log-link and binomial distribution (binomial log-linear regression) was used to estimate the aORs while accounting for potential confounding effects of sex, age, province and site of HIV testing.
ART = antiretroviral therapy; HIV = human immunodeficiency virus; OR = odds ratio; CI = confidence interval; aOR = adjusted OR.

the majority (94%) of people newly diagnosed with HIV were enrolled in care, and nearly 80% were initiated on ART. About half of the study population was asymptomatic and in WHO Clinical Stage 1. We were unable to obtain reasons as to why some people did not enrol in HIV care, as this information was not recorded in the HTS registers. However, the main reason for not initiating ART after enrolment in care was transfer out to another HIV care and treatment centre. The reasons for transfer out were not captured. High population mobility and transfers during care and treatment are a common feature in this part of Africa but, encouragingly, most people who transfer out from one centre do in fact transfer in to another centre.[16]

Second, 65% of those newly diagnosed with HIV and >80% of those who initiated treatment started ART on the day they were HIV tested. In particular, those tested in maternal and child health departments had a significantly higher likelihood of same-day ART initiation than others. The higher uptake of same-day

TABLE 4 Association between WHO clinical stage at enrolment in care and being started on ART on the same day as being HIV tested in people newly diagnosed with HIV at 16 mission hospitals, Zimbabwe, April–June 2017

	Enrolled in HIV care	Started ART on same day	
WHO clinical stage*	*N*	*n* (%)	χ^2 test for trend and *P* value†
Total	862	582 (68)	χ^2 test for trend = 0.18
1	456	300 (66)	*P* = 0.68
2	231	162 (70)	
3	161	115 (71)	
4	14	5 (36)	

*Only patients for whom WHO clinical stage was known are presented.
†Extended Mantel-Haenszel χ^2 test for linear trend.
WHO = World Health Organization; ART = antiretroviral therapy; HIV = human immunodeficiency virus.

TABLE 5 Treatment outcomes at 3 months in those who initiated ART at 16 mission hospitals, Zimbabwe, April–June 2017

Treatment outcomes for people newly diagnosed with HIV who were initiated on ART	*n* (%)
Total initiated on ART in the same clinic, *n*	771
Retained and alive on ART	694 (90)
Transferred out to another ART centre	74 (10)
Lost to follow-up	1 (<1)
Died	1 (<1)
Missing data	1 (<1)

ART = antiretroviral therapy; HIV = human immunodeficiency virus.

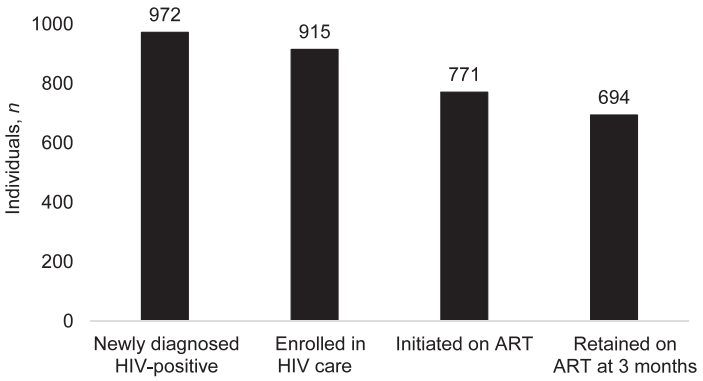

FIGURE 2 The cascade from HIV testing to enrolment in HIV care, initiation of ART in the same clinic and retention on ART at 3 months in people newly diagnosed with HIV at 16 mission hospitals, Zimbabwe, April–June 2017. HIV = human immunodeficiency virus; ART = antiretroviral therapy.

ART initiation by mothers and children may be because Zimbabwe adopted the Option B+ approach for preventing mother-to-child transmission of HIV in September 2013.[17] The rapid roll-out of this approach in Zimbabwe was associated with training of health workers, intense advocacy and community sensitisation, all of which may have helped to remove the social, cultural and health system-related barriers that prevent newly diagnosed HIV-infected people from taking up immediate life-long treatment.[18–21] The high uptake of same-day ART initiation in Mashonaland Central was encouraging, and may have been due to one of the province hospitals piloting the new approach several months before its launch. While the lower uptake of same-day ART initiation in those who were HIV-tested in outreach programmes may have been due to logistic challenges associated with getting people quickly back to hospital for treatment and medication,[20] the lower uptake in those in WHO Clinical Stage 4 or in the opportunistic infection clinic was almost certainly related to the need to investigate and manage some of these patients (e.g., for TB or cryptoccocal meningitis) before ART initiation.

Third, the overall 3-month programmatic outcomes of those who started ART were excellent; the main reason again for not achieving 100% retention in care was transfer-out.

The strengths of this study were the large sample size, the good recording of data and the conduct and reporting of the study according to STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines.[22] The study had several limitations. The selection of well-supported rural mission hospitals as the type of health facility for the study throws doubt on the generalisability of the findings for the whole country. There was no documented information in the HTS register about why some people were not enrolled in HIV care, thus hampering understanding of why there was attrition at this stage. The 3-month ART programme outcomes only allowed a preliminary assessment of early retention in care; however, longer 12- and 24-month outcome assessments are required to adequately judge the benefits and risks of rapid initiation of ART.

Our study findings have a number of programmatic implications. First, it is clear that a longer-term programmatic outcome assessment of 'Test and Treat' and same-day ART initiation needs to be carried out in different types of health facilities in different provinces of the country. While a recent meta-analysis of randomised trials found that same-day ART initiation is associated with increased viral suppression, better retention in care and a trend towards reduced mortality and LTFU at 12 months,[23] national data need to be obtained on these indicators to better inform the programme.

Second, more work is needed to understand which type of patient is most likely to benefit from accelerated ART initiation (e.g., those with advanced disease, pregnant women), and for which patients treatment may be deferred, such as those with suspected TB or cryptococcal meningitis, in whom immune reconstitution inflammatory syndrome can be life-threatening.[24] In this regard, it was interesting that only a third of patients in WHO Stage 4 in our study initiated ART on the same day.

Third, the policy of accelerated ART initiation needs to be integrated into Zimbabwe's new policy of HIV retesting for confirmation of HIV-positive status before starting ART. HIV infection may be wrongly diagnosed as a result of poor quality control, administrative errors and lack of training and supervision of staff,[25] and this poses a risk for the 'Test and Treat' approach.

In conclusion, in 16 mission hospitals in rural Zimbabwe, the Test and Treat approach was feasible and successful in getting newly HIV-infected people not only initiated on ART but also initiating ART on the same day as being HIV tested. More research needs to be done to better understand processes, benefits and potential risks.

References

1 Joint United Nations Programme on HIV/AIDS. UNAIDS data, 2017. UNAIDS/JC2910E. Geneva, Switzerland: UNAIDS, 2017.
2 World Health Organization. Scaling up antiretroviral therapy in resource-limited settings: Guidelines for a public health approach. 2003 revision. Geneva, Switzerland: WHO, 2003.
3 World Health Organization. Antiretroviral therapy for HIV infection in adults and adolescents. Recommendations for a public health approach. 2010 Revision. Geneva, Switzerland: WHO, 2010.
4 World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a public health approach. Geneva, Switzerland: WHO, 2013.
5 World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a public health approach. 2nd ed. Geneva, Switzerland: WHO, 2016.
6 Joint United Nations Programme on HIV/AIDS. 90-90-90. An ambitious treatment target to help end the AIDS epidemic. Geneva, Switzerland: UNAIDS, 2014.
7 Columbia University. Zimbabwe population-based HIV impact assessment (ZIMPHIA) 2015–2016. New York, NY, USA: Columbia University, 2016. http://phia.icap.columbia.edu/wp-content/uploads/2016/11/ZIMBABWE-Factsheet.FIN_.pdf. Accessed July 2018.
8 Ministry of Health and Child Care, Zimbabwe. Global AIDS Response Report. Zimbabwe Country Report. Harare, Zimbabwe: Ministry of Health and Child Care, 2016.
9 National Medicines and Therapeutics Policy Advisory Committee (NMTPAC) and the AIDS and TB Directorate, Ministry of Health and Child Care. Guidelines for Antiretroviral therapy for the Prevention and Treatment of HIV in Zimbabwe. Harare, Zimbabwe: Ministry of Health and Child Care, 2016.
10 Amanyire G, Semitala F C, Namusobya J, et al. Effects of a multicomponent intervention to streamline initiation of antiretroviral therapy in Africa: a stepped-wedge cluster randomised trial. Lancet HIV 2016; 3: e539–e548.
11 Rosen S, Maskew M, Fox M P, et al. Initiating antiretroviral therapy for HIV at a patient's first clinic visit: the RapIT randomised controlled trial. PLOS Med 2016; 13: e1002015.
12 Helova A, Akama E, Bukusi E A, et al. Health facility challenges to the provision of option B+ in western Kenya: a qualitative study. Health Policy Plan 2017; 32: 283–291.
13 Zimbabwe National Statistics Agency. Zimbabwe population census 2012. Harare, Zimbabwe: ZIMSTAT, 2013.
14 World Bank. Gross domestic product (GDP) per capita (current $US): data. Washington DC, USA: World Bank, 2016. http://data.worldbank.org/indicator/NY.GDP.PCAP.CD?view=chart. Accessed July 2018.
15 Zimbabwe Association of Chruch-Related Hospitals. Narrative Report. Equity, quality and accessibility. Harare, Zimbabwe: ZACH, 2015.

16 Yu J, Tok T S, Tsai J J, et al. What happens to patients on antiretroviral therapy who transfer out to another facility? PLOS ONE 2008; 3: e2065.
17 Takarinda K C, Harries A D, Mutasa-Apollo T. Critical considerations for adopting the HIV 'treat all' approach in Zimbabwe: is the nation poised? Public Health Action 2016; 6: 3–7.
18 Govindasamy D, Ford N, Kranzer K, Risk factors, barriers and facilitators for linkage to antiretroviral therapy care: a systematic review. AIDS 2012; 26: 2059–2067.
19 Iwuji C C, Orne-Gliemann J, Larmarange J, et al. Uptake of home-based HIV testing, linkage to care and community attitudes about ART in rural KwaZulu-Natal, South Africa: descriptive results from the first phase of the ANRS 12249 TasP cluster-randomised trial. PLOS Med 2016; 13: e1002107.
20 Dlamini-Simelane T T, Moyer E. 'Lost to follow-up': rethinking delayed and interrupted HIV treatment among married Swazi women. Health Policy Plan 2016; 32: 248–256.
21 Pell C, Vernooij E, Masilela N, Simelane N, Shabalala F, Reis R. False starts in 'test and start': a qualitative study of reasons for delayed antiretroviral therapy in Swaziland. Int Health 2018; 10: 78–83.
22 von Elm E, Altman D G, Egger M, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Bull World Health Organ 2007; 85: 867–72.
23 Ford N, Migone C, Calmy A, et al. Benefits and risks of rapid initiation of antiretroviral therapy. AIDS 2018; 32: 17–23.
24 Bahr N, Boulware D R, Marais S, Scriven J, Wilkinson R J, Meintjes G. Central nervous system immune reconstitution inflammatory syndrome. Curr Infect Dis Rep 2013; 15: 583–593.
25 Shanks L, Klarkowski D, O'Brien D P. False-positive HIV diagnoses in resource-limited setttings: operationmal lessons learned for HIV programmes. PLOS ONE 2013; 8: e59906.

Contexte : Seize hôpitaux de mission au Zimbabwe qui mettent en œuvre l'approche « Tester et Traiter » pour les personnes vivant avec le virus de l'immunodéficience humaine (VIH).
Objectif : Evaluer les liens entre le diagnostic du VIH et la prise en charge et le traitement, le délai entre le diagnostic d'infection à VIH et la mise en route du traitement antirétroviral (TAR) et les résultats à 3 mois des patients ayant mis en route le TAR.
Schéma : Etude transversale recourant à des données secondaires.
Résultats : Parmi 972 personnes ayant eu un diagnostic récent de VIH, 915 (94%) patients étaient enrôlés dans la prise en charge du VIH et 771 (79%) ont mis en route le TAR. L'enrôlement dans la prise en charge et la mise en route du TAR le même jour que le test a concerné respectivement 864 (89%) et 628 (65%) patients récemment diagnostiqués. Plus de 80% des patients testés pour le VIH dans des services de santé maternelle et infantile ont mis en route le TAR le même jour. Sur les 144 (16%) patients pris en charge qui n'ont pas été mis sous TAR, la raison principale chez 102 (71%) a été un transfert. La majorité des patients (90%) sous TAR ont été retenus en traitement à 3 mois, la plupart des autres ayant été transférés.
Conclusion : L'approche « Tester et Traiter » a été faisable et a réussi à ce que les patients récemment infectés par le VIH soient précocement mis sous TAR. Davantage de recherche est nécessaire afin de mieux comprendre les processus, les bénéfices et les risques potentiels.

Marco de Referencia: Diez y seis hospitales de misión en Zimbabwe que introducen la estrategia 'Análisis y Tratamiento' para todas las personas con infección por el virus de la inmunodeficiencia humana (VIH).
Objetivos: Evaluar el vínculo entre los servicios de diagnóstico, atención y tratamiento de la infección por el VIH, el tiempo que transcurre entre el diagnóstico de la infección y el inicio del tratamiento antirretrovírico (TAR) y los resultados programáticos a 3 meses, en las personas que inician el TAR.
Método: Fue este un estudio transversal realizado a partir de datos secundarios.
Resultados: De las 972 personas con diagnóstico reciente de infección por el VIH, 915 se inscribieron en los servicios de atención (94%) y 771 iniciaron TAR (79%). La inscripción a los servicios del VIH y el inicio del TAR en el mismo día de la prueba diagnóstica ocurrió en 864 pacientes (89%), de los cuales 628 recién diagnosticados (65%). Más del 80% de las personas que recibieron la prueba en los departamentos de salud maternoinfantil inició el TAR el mismo día. En las 144 personas inscritas al servicio de atención que no iniciaron tratamiento (16%), la principal razón fue una transferencia a otra unidad en 102 de ellas (71%). La mayoría de los pacientes que recibían TAR (90%) permanecía en los servicios de atención a los 3 meses y la mayor parte de los pacientes restantes correspondía a las transferencias a otra unidad.
Conclusión: La introducción de la estrategia 'Análisis y Tratamiento' fue factible y eficaz para conseguir que las personas con una infección reciente iniciaran pronto el TAR. Se precisan nuevas investigaciones que permitan comprender mejor los procesos, los beneficios y los eventuales riesgos.

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